



# BTL-3000 Series

DELTA 10-40

INSTALLATION

**CONTENTS**

<b>1</b>	<b>INSTALLATION .....</b>	<b>3</b>
1.1	Water Piping .....	3
1.2	Electrical Installation .....	3
1.3	Table of inputs, cross-sections and protection .....	4
1.4	Installation Requirements.....	4

## 1 INSTALLATION

Installation of tubs must be done by qualified personnel with BTL accreditation. In case of "amateurish" installation the supplier does not guarantee for the installation part of the hydromassage equipment and the defects connected with unprofessional installation. Guarantee does not apply for these defects.

Installation of tubs can be done only after completion of all building and preparatory works (water mains, electrical cabling and drainage) which shall be realized by the customer before the installation and settling of the tub. The list and description of installation requirements is in the attachment and/or can be requested from the supplier.

### CAUTION

It is necessary to make sure in advance that large tubs can be transported to the place of operation!!!

### 1.1 WATER PIPING

Water piping installation must comply with the valid standards for internal duct and for house sewerage in case of operation in residential, balneal, remedial and similar facilities.

#### Recommendations for the cases of worse conditions in the existing water mains

- If pressure in the inlet of warm and cold water is unbalanced it is recommended to mount reducing valves.
- On the warm and cold water inlets install water filters for filtration of impurities contained in the water mains, possibly also a device for dissolution of scale.

### CAUTION

The lever of the drain valve is located at the left side of the tub (if facing the tub from the control panel). If you want to place the tub with the side to the wall it is necessary to require in the order that the lever is located at the opposite side! If the tub is adapted for water recycling the drain valves are two and are located at both the right and left side.

### 1.2 ELECTRICAL INSTALLATION

Connection of the tub to the mains can only be done by an authorized subject according to the valid standards. The following requirements must be observed:

- the electrical wiring for connection of the hydromassage tub must comply with the valid standards
- the electric equipment of the hydromassage tub must have its own, separately protected power supply dimensioned for the equipment input
- the electric equipment of the hydromassage tub must be connected to the TN-S system.
- if the stated system is not installed in the building, it is necessary to divide the PEN conductor into the protective PE wire and the N wire on the main or accessory switchboard
- this switchboard shall be located at the door to the room with the hydromassage tubs. If the switchboard is located in the room with the tub, it must comply with the requirements of the valid standards.
- If the tubs will be installed in balneal, medical and similar facilities it is necessary to comply in addition with the following requirements according to the applicable standards:
- conditions for the medical room of the hydrotherapy type
- cross-section of the conductors of protective bonding must not be less than  $\text{Cu } 6 \text{ mm}^2$
- impedance of the protective wires must comply with the requirements of the valid standards, i.e. for protection up to 16 A impedance lower than 0,2 Ohm. For other protection the value of impedance must be calculated.

The installation must be subject to an inspection according to the valid standard, including the measured values.

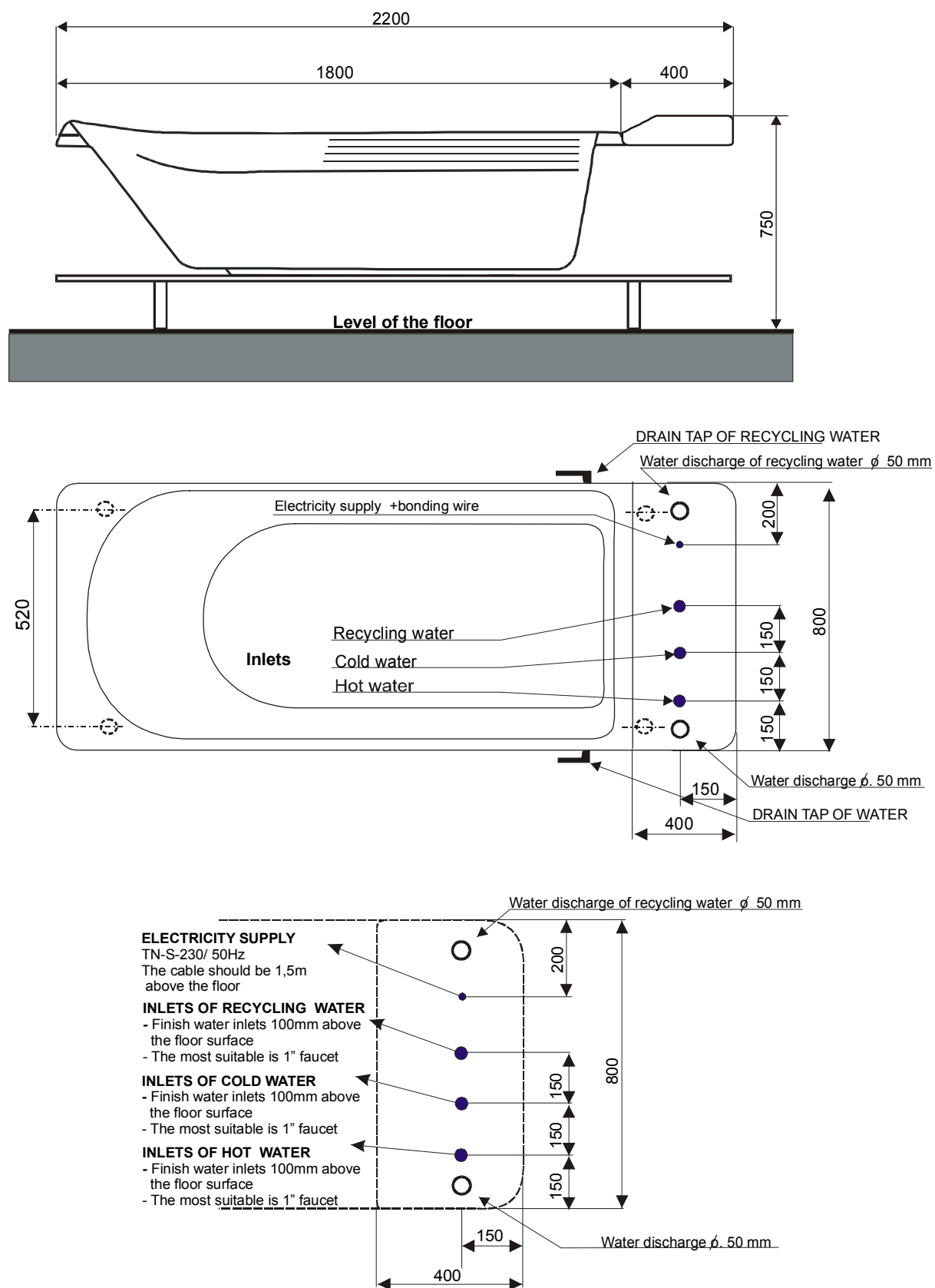
The power supply must be equipped with current protection 30 mA.

## 1.3 TABLE OF INPUTS, CROSS-SECTIONS AND PROTECTION

Name	Current	Total input	Circuit breaker	Cable
Delta 10				
Delta 20	4 A (230 V)	0,9 kW	6 A	3 C x 1,5 mm <sup>2</sup>
Delta 30	7A (230 V)	1,6 kW	10 A	3 C x 1,5 mm <sup>2</sup>
Delta 30 + 3kW heating	20A (230V)	4,6 kW	25 A	3 C x 2,5 mm <sup>2</sup>
Delta 40	10,5A (230 V)	2,5 kW	16 A	3 C x 2,5 mm <sup>2</sup>
Delta 40+ 3kW heating	24A (230 V)	5,5 kW	25 A	3 C x 2,5 mm <sup>2</sup>

## 1.4 INSTALLATION REQUIREMENTS

- The water supply inlets must end by 1" ball valve with internal thread, max. 100 mm above the floor.
- The outlet must end by a pipe of the diameter 50 mm, min. 50 mm above the floor.
- In the floor there must be prepared the power supply full conductor, the length of the cable end above the floor is 1,5 m.
- For Delta type tubs use full conductors with cross-section according to the above stated table
- Along with the cable lead the bonding wire min. 6 mm<sup>2</sup>.
- Tolerance of location of water and electric outlets is max. 50 mm.
- Insert the current protector Idn 30mA.
- It is recommended to place the mains switch close to the tub (zone 2).
- Electrical installation of the room must comply with all valid standards and the customer is obliged to provide the inspection report for this installation.
- Minimum width of the door for transport of the tub is 85cm.
- In case of unequal pressure of supplied cold and warm water it is recommended to install reducing valves or clack valves.
- To the inlets of cold and warm water it is recommended to install the filter for mechanical impurities.
- If water is of worse quality or specific type (high level of minerals, etc.) it is necessary to take into account provisions to prevent damage of the hydromassage equipment.





This document is not a User's Manual and cannot in any case be applied to a different type of hydromassage equipment.

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